



## Rural Nevada and climate change: Vulnerability, beliefs, and risk perception

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### Abstract:

In this article, we present the results of a study investigating the influence of vulnerability to climate change as a function of physical vulnerability, sensitivity, and adaptive capacity on climate change risk perception. In 2008/2009, we surveyed Nevada ranchers and farmers to assess their climate change-related beliefs, and risk perceptions, political orientations, and socioeconomic characteristics. Ranchers' and farmers' sensitivity to climate change was measured through estimating the proportion of their household income originating from highly scarce water-dependent agriculture to the total income. Adaptive capacity was measured as a combination of the Social Status Index and the Poverty Index. Utilizing water availability and use, and population distribution GIS databases; we assessed water resource vulnerability in Nevada by zip code as an indicator of physical vulnerability to climate change. We performed correlation tests and multiple regression analyses to examine the impact of vulnerability and its three distinct components on risk perception. We find that vulnerability is not a significant determinant of risk perception. Physical vulnerability alone also does not impact risk perception. Both sensitivity and adaptive capacity increase risk perception. While age is not a significant determinant of it, gender plays an important role in shaping risk perception. Yet, general beliefs such as political orientations and climate change-specific beliefs such as believing in the anthropogenic causes of climate change and connecting the locally observed impacts (in this case drought) to climate change are the most prominent determinants of risk perception.

**Source:** <http://dx.doi.org/10.1111/j.1539-6924.2012.01836.x>

### Resource Description

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

**Other Communication Audience:** Farmers and Ranchers

#### Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event

**Extreme Weather Event:** Drought

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## **Geographic Feature:**

resource focuses on specific type of geography

Desert, Rural

## **Geographic Location:**

resource focuses on specific location

United States

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Population of Concern:** A focus of content

**Other Vulnerable Population:** People with high water resource vulnerability

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content